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Abstract

[0048] A method is disclosed for substantially uniformly coating an interior surface of a ferromagnetic tubular structure such as a ferromagnetic tube having a high aspect ratio. The method entails inducing a magnetic field of a given magnitude within the tubular structure. Further, a bias is applied at a given voltage to the tubular structure. Then, the interior surface of the tubular structure is exposed to a gaseous precursor material under conditions effective to convert a quantity of the gaseous precursor material to ionize gaseous precursor material. The given magnitude and voltage is such that it is effective to deposit the ionized the gaseous precursor material onto the interior surface and converts the ionized gaseous precursor material to a substantially uniform protective coating in the interior surface.

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